

WHAT IS CLAIMED IS:

1. A substantially pure Type II restriction
endonuclease obtainable from *Bacillus*
5 *thermoglucosidasius* 36A (ATCC Accession No._____)
recognizing the following base sequence in double-
stranded deoxyribonucleic acid molecules:

5'-GCGATGNNNNNNNNNN↓-3' (SEQ ID NO:9)

3'-CGCTACNNNNNNNNNN↑-5'

10 and having a cleavage position defined by the arrows

2. A method for obtaining the Type II restriction
endonuclease of claim 2, comprising cultivating a sample
of *Bacillus thermoglucosidasius* 36A under conditions
15 favoring the production of said endonuclease and
separating said endonuclease therefrom.

3. The Type II restriction endonuclease of claim
1, wherein the restriction endonuclease is purified from
20 *Bacillus thermoglucosidasius* 36A (ATCC Accession
No._____) .